



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5764-1

Job Sheet 207397



POSITIVE RECALL

Part No: D5764-1

Job Qty: 24 pcs

Part Name: Stud



Part Weight: 0 lbs

Job Created: 2/25/20

Due Date: 3/6/20

Type: Stock

Status: New

Job Tracking No:

Created By: Jennifer Renwick

Description:

Priority: Medium

Note: PN was 96710 DWG D5764 REV.A IPP REV:A 19.12.17 NEW ISSUE JV VERF:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	Sign-off
100	Doosan - 1	24 pcs	3/6/20	3/6/20	1.00	4.00	Doosan - 1	SL-250W-1	SL 20-3-3
110	QC 2	24 pcs	3/6/20	3/6/20	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		SL 20-3-3
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 36		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		
							QC 2 - 8		
							QC 2 - 66		
							QC 2 - 64		
							QC 2 - 65		

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 813 632-5200
Email: sales@dartaero.com
www.dartaero.com

Container No: S260312

Part: D5764-1
Job No: 207397
Serial No/Batch: S260312
Revision: REV.A

Inspector:
Exp Date:
Instructions:

Date: 03/03/20

Plex 2/26/20 9:55 AM Dart.Lajeunesse.Inc@

120 QC 8	24 pcs	3/6/20	0.00 0.00	QC 2 - 5	
				QC 2 - 71	
				QC 2 - 73	
				QC 2 - 69	
				QC 2 - 76	
				QC 8 - 12	
				QC 8 - 14	ML 20/03/05
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	ML 20/03/05
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 57	
				QC 8 - 76	
				QC 8 - 61	
130 Packaging 3-1 - Stock - B4B	24 pcs	3/6/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	

DAS
28
9-89

				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - SA	24 pcs	3/6/20	0.00 0.00	QC 21 - SA - 21	21
				QC 21 - SA - 70	70
				QC 21 - SA - 53	53

MAR 05 2020

57190

Part Op 100 - 1-Machine as per folio F 102 FOLIO REV: AA DWG REV: A 2-Debur
 Descriptions: 110 - QC2- Inspect parts off machine FAI/FAIB
 120 - QC8- Inspect parts - second check
 130 - Identify as per dwg & Stock Location:
 140 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M303R0.750	303 Round Bar 0.750	2.3664 ft (0.986 ea) -088	100-Doosan - 1	S243103=2.45

Job Allocations

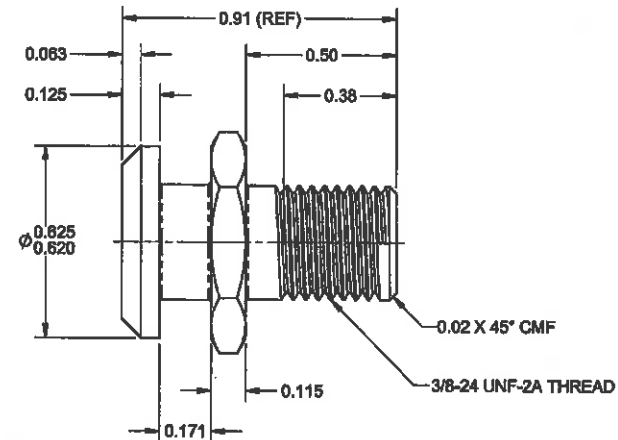
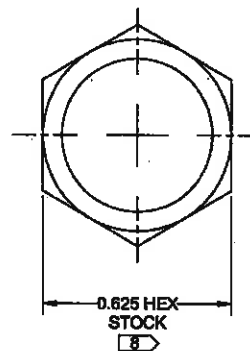
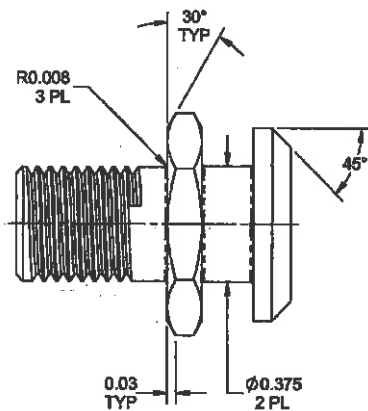
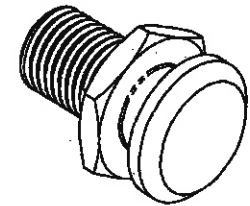
Operation	Component Part	Required	Inventory	Allocated
100-Doosan - 1	M303R0.750	2	57	0

Part Specifications

Specifications could not be found.

Plex 2/26/20 9:56 AM Dart.lajeunesse.marie

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 207397



D5764-1 STUD
(DERIVED FROM AERO DESIGN P/N 96710-01)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ROUND BAR
PER ASTM A276
REF DART SPEC M304R
OR
AISI 303 STAINLESS STEEL ROUND BAR
PER ASTM A582
REF DART SPEC M303R
OR
AISI 303 STAINLESS STEEL HEX BAR, 0.625 HEX
PER ASTM A582
REF DART SPEC M303H
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 SECTION 6.7
- 7) WEIGHT: 0.04 lbs
- 8) STOCK ONLY APPLICABLE WHEN AISI 303 STAINLESS STEEL HEX BAR IS USED

UNDER REVIEW
URF 20-529 20.02.27 (MG)

RELEASED

2020 FEB '27
ERN 2424-528

APPROVED

A NEW ISSUE		KPT	19.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN	KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	KPT		
CHECKED	ML	DRAWING NO.	REV. A
MFG. APPR.	JFS	D5764	SHEET 1 OF 1
APPROVED	NO	TITLE	SCALE
DE APPR.	DS	STUD	NTS
DATE	19.12.12	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR ANY REASON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB045395



Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 6L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

Attention: Langevin, Melanie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB045395

PO Date: 12/13/19

Due Date: 12/20/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Laviole, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
claviole@dartaero.com

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments: quote no. sou0229385

Items													
Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		MT-HRS-B-2.500X3.500			Hot Rolled Steel Bar 2.500W X 3.500H : MATERIAL: HOT ROLLED STEEL BAR ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018	Firmed -		1/10/20	6 ft	0 ft	6 ft	\$80.00/ft	\$480.00
2		M304R0.250			304 SS Round bar .250 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed -		12/20/19	12 ft	0 ft	12 ft	\$0.5275/ft	\$6.33
3		M304R0.375			304 Round Bar 0.375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed -		12/20/19	24 ft	0 ft	24 ft	\$1.1504/ft	\$27.61
4		M303R0.375			303 Round Bar 0.375" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed -		12/20/19	36 ft	0 ft	36 ft	\$1.357222/ft	\$48.86
5		M303R0.625			303 Round Bar 0.625" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed -		12/20/19	24 ft	0 ft	24 ft	\$3.7645833/ft	\$90.35
6		M303R0.750	648.1400		303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed -		12/20/19	72 ft	0 ft	72 ft	\$5.4965277/ft	\$395.75

Plex 12/13/19 1:57 PM Darl.Lavoie.Chantal

Plex 12/13/19 1:57 PM Dart.Laviole.Chantal

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00184581

Billed to DART AEROSPACE LTD 1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	Shipped to 1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7 Att : CHANTAL Delivery Route 5	Customer N° Date Delivery date Your order N° Processed by Salesman Carrier Credit Terme	CLI0001056 2019/12/13 2019/12/18 POHB045395 Josianne Bourdon JOSIANNE BOURDON OUELLETTE VALLEYFIELD Net 30 Days
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Product Description	Weight	Qty	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND SS 304 1/4 (R) RSS-14 5742 1 X 12' R/L POHB045395 LINE 2 HEAT: FF-6524 DAS 82 0-89 DEC 2 9 2019	2.00	12.00	PI_\$CLB		1X 12'10"						
2 ROUND SS 304 3/8 (R) RSS-38 5768 2 X 12' R/L POHB045395 LINE 3 HEAT: 51089 DAS 82 0-89 DEC 2 0 2019	9.02	24.00	PI_\$CLB		2X 12'1"						
3 ROUND SS 303 3/8 (R) RSS-38303 5765 3 X 12' R/L POHB045395 LINE 4 HEAT: 469668 AC32438-CF-16/12 DAS 82 0-89 DEC 2 0 2019	13.54	36.00	PI_\$CLB		3X 12'6"						
4 ROUND SS 303 5/8 NS RSS-58303 8749 2 X 12' R/L POHB045395 LINE 5 HEAT: C67B AC32438-CF-16/12 DAS 82 0-89 DEC 2 0 2019	25.03	24.00	PI_\$CLB		2X 12'1"						
5 ROUND SS 303 3/4 (R) RSS-34303 5761 6 X 12' R/L POHB045395 LINE 6 HEAT: 461574 DAS 82 0-89 DEC 2 0 2019	108.14	72.00	PI_\$CLB		1X 2X 12'10" 12'10" 12'10"						

RECEIVED

DEC 19 2019

DART AEROSPACE LTD.

LINE 6

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303 R.O. 750

PO / BATCH NO.: POMBOY5395

DATE: DEC 20 2019

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 73.5ft
 QUANTITY INSPECTED: 23.5ft
 QUANTITY REJECTED: —

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> N	ASTM A582
CORRECT THICKNESS	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	H/T 461574
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
<div style="font-size: 24pt; font-weight: bold;">82</div> INSPECTED BY: <u>9-89</u>	SIGNED OFF BY: _____
DATE: <u>DEC 20 2019</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5761

KSS-34303

53203 23117
ACEROS INOXIDABLES

Larondo LOIU (VIZCAYA) España
P.O. Box 1.323/48080 Bilbao
Tel. 34-(4) 4 71 13 00
Fax. 34-(4) 4 33 16 36

Management Systems
Certified by
LRQA
ISO 9001 / 501 4000366
ISO 14001 / 501 1470678

OLARRA

Trade Mark - Zeichen des Lieferwerkes
Anagrama del suministrador



Works Inspector Stamp - Werkssachverständiger
Sello del Inspector



Certificate type - APZ Nach Certificado tipo		EN 10204/3.1		Certificate n° - Prüf-Nr Certificado n°		366713		Date - Datum - Fecha 18 - 10 - 2018	
Our order N° Werks - Nr N° de Referencia		665994		Heat Schmelz Colada		461574		Your order N° Bestell - Nr Pedido N°	
Steel Grade Werkstoff Calidad		AISI-303		82 9-80		DEC 20 2019		According to Entsprechend Corresponde	
								ASTM A 582 / A 582M-12.	
Shape and Size - Gegenstand Perfil y dimensión ROUND 3/4"		Tolerance - Toleranz Tolerancia ASTM A 484 / TB.7		Bundles Bunde Bultos		2		Bars Stäbe Barras	
								Weight Gewicht Peso	
								2317 Lbs	
Requirements - Anforderungen - Exigencias									
QQ-S 784B-70. AMD2 COND.A. SAE AMS 5640U-07. TYPE I. EN 10.088-3.2014. 1.4305. MECAMAX - PLUS									
Melting process / Erhmelzungsart / Proceso de Fusión					Heat treatment / Wärmebehandlung / Tratamiento térmico				
E.A.F. / A.O.D.					1050C 4H/Std WATER/WASSER/AGUA				
Solution annealed/Abgeschreckt/Hipertempe-Cold drawn/Gezogen/Estrado-Polished/Poliert/Pulido-									
Test results - Ergebnis der Prüfungen - Resultados de los ensayos									
Dimension of Specimen Abmessungen des Probekörpers Medida de las probetas		Rp0.2% KSI	Rp 1% KSI	Rm KSI	A %L 5D	A %L 4D	Z %	Hardness Härte HBw	Impact test / Kerbschlag / Resiliencia ISO V ft. lb
RD. 12,50 mm.		Min.							
		Max.						282	
Temperature °C 20	Spec. N° Probe Nr. Pro N°	1	78	98	108	34	56	235	
	C	Si	Mn	P	S	Cr	Mo	Ni	Cu
Min					0,150	17,00		8,00	
Max.	0,150	1,00	2,00	0,200		19,00		10,00	0,70
	0,046	0,42	1,75	0,038	0,312	17,67	0,40	8,33	0,50
									0,0385
									0,15
Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional		Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad		Antitesting test Spektroskop Verwechslungspr Antimezcla		Grain Size Korngröße Tamaño de grano			
		O.K.		O.K.		O.K.			
Remarks - Bemerkungen - Observaciones									
Free From Mercury contamination/Quecksilberfreiheit. No weld repair.									
EDV / EDP Acc. EN 10.204 Marian Tejedo Quality Mng. Works Inspector Der Werkssachverständige Inspector de fábrica									

We hereby certify that material described herein complies with the requirements agreed on the order.

Firmado digitalmente por / Signed digitally by:
ACEROS INOXIDABLES OLARRA SA - CIF A48863646
Fecha / Date: 18-10-2018 16:14

461574

221585

L1W66

M303R 0.750

HTA 461574

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION: ASTM A582

PART NUMBER: M303R(D.DDD)
DIA.



WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303R0.750

DEC 20 2019

DAS
82
9-89

RELEASED
2010-02-02
MD

B	REFORMAT DWG. ADD SPECS (ZN D8-1), REF PAR 06-020A	CP	10.01.05
A	NEW ISSUE	DS	01.12.20
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO. M303R	REV. B SHEET 1 OF 1
MFG. APPR.		TITLE 303 ROUND BAR	SCALE NTS
APPROVED			
DE APPR.		COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED IN THE "AS-IS" CONDITION. IN PART IT IS NOT TO BE REPRODUCED OR COPIED OR OTHERWISE USED IN ANY MANNER WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.	
DATE		10.01.05	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> </div> <div> Eng. (Non-AW) <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/> </div> </div>			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause <div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		FAULT CATEGORY <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Bending <input type="checkbox"/> Crushing <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Mislabeled </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Incomplete/Unclear Instructions <input type="checkbox"/> Drill Holes <input type="checkbox"/> Fit/Function </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain Direction <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Off-set/Set-up </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Outside Tolerance <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Misread </div> </div>			
Other/Details:					